

## WHAT IS CLAIMED IS:

Sub A13

1. A Coriolis flowmeter having a reduced flag dimension comprising:  
a first flow tube;  
a second flow tube;  
a substantially semicircular arc between an inlet end and an outlet end of each of said first flow tube and second flow tube;  
a driver affixed to said first and said second flow tube at a point on said substantially semicircular arc that is substantially perpendicular to bending axes of said first and said second flow tube wherein said driver oscillates said first flow tube and said second flow tube in opposition to each other;  
a first brace bar affixed said first flow tube and said second flow tube proximate said inlet end;  
a second brace bar affixed to said first flow tube and said second flow tube proximate said outlet end; and  
pick-off sensors affixed to said first and said second flow tubes in a position that allows said pick-off sensors to detect the greatest amount of Coriolis force at a low amplitude vibration.

2. The Coriolis flowmeter of claim 1 further comprising:  
an inlet manifold affixed to said inlet ends of said first flow tube and said second flow tube to affix said first flow tube and said second flow tube to a pipeline.

3. The Coriolis flowmeter of claim 2 further comprising:  
a substantially 90 degree bend in a flow path through said inlet manifold.

Sub A14

4. The Coriolis flowmeter of claim 1 further comprising:  
an outlet manifold affixed to outlet ends of said first flow tube and said second flow tube to connect said first flow tube and said second flow tube to a pipeline.

5. The Coriolis flowmeter of claim 4 further comprising:  
a substantially 90 degree bend in a flow path through said outlet manifold.

Sub  
A15

6. The Coriolis flowmeter of claim 1 further comprising:  
an inlet manifold affixed to said inlet ends of said first flow tube and said second flow tube to affix said first flow tube and said second flow tube to a pipeline;  
an outlet manifold affixed to outlet ends of said first flow tube and said second flow tube to connect said first flow tube and said second flow tube to a pipeline; and  
a spacer affixed to said inlet manifold and said outlet manifold to maintain a fixed distance between said inlet manifold and said outlet manifold.

7. The Coriolis flowmeter of claim 6 wherein said spacer comprises:  
an inlet end affixed to said inlet manifold;  
an outlet end affixed to said outlet manifold;  
a top side, a bottom side, a front side, and a back side between said inlet and outlet ends; and  
openings through said top side of said spacer through which said first flow tube and said second flow tube are affixed to said inlet and said outlet manifold.

8. The Coriolis flowmeter of claim 7 further comprising:  
a casing that encloses said first flow tube and said second flow tube affixed to said top side of said spacer.

Sub  
A16

9. The Coriolis flowmeter of claim 8 wherein said casing comprises:  
a front side wall;  
a back side wall; and  
a mass affixed to said front side wall and said back side wall to changes vibrational modes of said housing.

10. The Coriolis flowmeter of claim 1 wherein said position of said pick-off sensors is substantially 25-50 degrees from said bending axes of said first and said second flow tube.

11. The Coriolis flowmeter of claim 10 wherein said position of said pick-off sensors is 30 degrees from said bending axes of said first and said second flow

114

**tube.**

[illegible]